

CATALYTIC PARTIAL OXIDATION OF HYDROCARBONS

ABSTRACT OF THE INVENTION

A process for the production of a reaction product including a carbon
5 containing compound. The process includes providing a film of a fuel source
including at least one organic compound on a wall of a reactor, contacting the
fuel source with a source of oxygen, forming a vaporized mixture of fuel and
oxygen, and contacting the vaporized mixture of fuel and oxygen with a catalyst
under conditions effective to produce a reaction product including a carbon
10 containing compound. Preferred products include α -olefins and synthesis gas.
A preferred catalyst is a supported metal catalyst, preferably including rhodium,
platinum, and mixtures thereof.

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